

DESCRIPTION:

THE SDLVA-2020-OPT118 TRULY DC-COUPLED SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER (SDLVA) HAS 40dB DYNAMIC RANGE OVER THE RANGE OF 1-18 GHz BANDWIDTH, WITH TRUE DC COUPLING. UNITS EMPLOY PLANAR DIODE DETECTORS AND INTEGRATED VIDEO CIRCUITRY FOR HIGH SPEED PERFORMANCE AND OUTSTANDING RELIABILITY. THE DLVA'S ARE OF SUPERIOR CONSTRUCTION USING STATE-OF-THE-ART MIC/MMIC TECHNOLOGY. THE SIZE IS 3.0" X 3.5" X 0.5".

SPECIFICATIONS:

- FREQUENCY RANGE: 1 TO 18 GHz
- FREQUENCY FLATNESS: ± 2.0 dB TYPICAL, ± 2.5 dB MAXIMUM
- TSS: -65dBm MAXIMUM
- VSWR: 3.0:1 MAXIMUM (@ -20dBm)
- LOGGING RANGE: -65dBm TO -35dBm
- LOG LINEARITY: ± 1.75 dB MAXIMUM (-65 dBm TO -35 dBm)
- LOG SLOPE: 5 LSB/dB NOMINAL
- LOG TEMPERATURE STABILITY: ± 1.75 dB (0°C TO 60°C)
- RISE TIME (10% TO 90%): 20ns MAXIMUM
- RECOVERY TIME: 200ns MAXIMUM
- OUTPUT POWER: +10 dBm ± 2.5 dB TYP
- POWER SUPPLY: +12V @ 700 mA MAXIMUM
-12V @ 200 mA MAXIMUM
- SIZE: 3.50" (L) x 3.00" (W) x 0.50" (H) MAX
- FINISH: PAINTED BLUE
- ADC CLOCK RATE (J4): 100 MHz
- DIGITAL LOG VIDEO OUTPUT: 8-BIT LVTTTL

- LVTTTL LOGIC OUTPUT: 3.3 V TYP
- LVTTTL COMPARATOR DELAY: 50 ns TYP
- LVTTTL THRESHOLD LEVEL: ADJUSTABLE (ANALOG)
-60 dBm ± 3 dB TYP
LOWEST LEVEL
- VIDEO OUTPUT: 8 BIT 3.3 V LVTTTL
- POWER/LOGIC CONNECTOR: 15 PIN MICRO-D MALE

PIN	DESCRIPTION
1	LVTTTL 1 (LSB)
2	LVTTTL 2
3	LVTTTL 3
4	LVTTTL 4
5	LVTTTL 5
6	LVTTTL 6
7	LVTTTL 7
8	LVTTTL 8 (MSB)
9	GND
10	LVTTTL LOGIC OUTPUT
11	+12 V
12	GND
13	-12 V
14	GND
15	LVTTTL THRESHOLD ADJUST

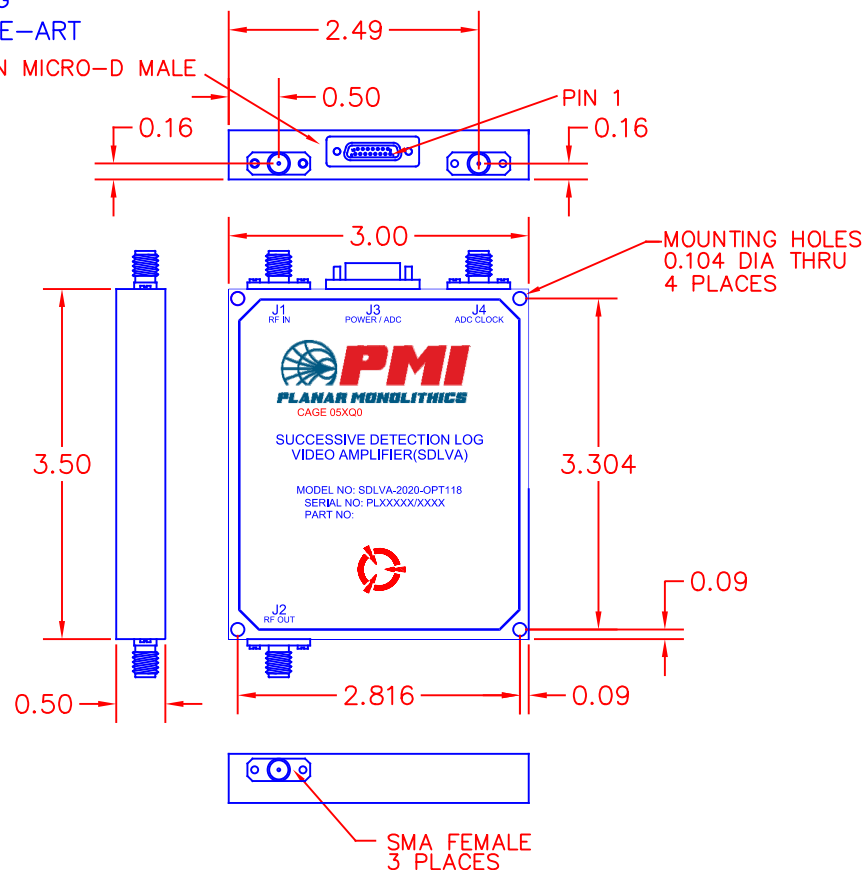
ENVIRONMENTAL RATINGS:

- TEMPERATURE: -54°C TO +85°C (OPERATING)
-65°C TO +100°C (STORAGE)
- HUMIDITY: MIL-STD-202F, METHOD 103B COND. B
- SHOCK: MIL-STD-202F, METHOD 213B COND. B
- VIBRATION: MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE: MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL-STD-202F, METHOD 107D COND. A

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX ± 0.020
X.XXX ± 0.010

REVISIONS			
ZONE	REV.	DESCRIPTION	DATE
	-	PRELIMINARY	9/1/26



7309-A GROVE ROAD
FREDERICK, MARYLAND 21704 USA
TEL: 301-662-5019 FAX: 301-662-1731
WEBSITE: www.pmi-rf.com
E-MAIL: sales@pmi-rf.com
ISO 9001 CERTIFIED



APPROVALS		DATE		TITLE			
DRAWN		AG		9/1/26			
CHECKED							
ISSUED							
SIZE		FSCM NO.		DWG NO.		REV.	
A		05XQ0		PRELIMINARY		-	
SCALE		N:S		SHEET		1 OF 2	